

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
7 April 2005 (07.04.2005)

PCT

(10) International Publication Number
WO 2005/029945 A1

(51) International Patent Classification⁷: **A01H 1/04**
(21) International Application Number:
PCT/AU2004/001327

(22) International Filing Date:
27 September 2004 (27.09.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
2003905277 26 September 2003 (26.09.2003) AU

(71) Applicant (for all designated States except US):
PHYTONOVA PTY LTD [AU/AU]; Building O, West-
mead Precinct, University of Western Sydney, Hawkesbury
Road, Westmead, NSW 2145 (AU).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **RICHARDS,**
Graeme, David [AU/AU]; 60/2 Lennox Street, Richmond,
NSW 2753 (AU). **OREL, George** [AU/AU]; 87 Ridgeway
Crescent, Valley Heights, NSW 2777 (AU).

(74) Agent: **SPRUSON & FERGUSON**; G.P.O. Box 3898,
Sydney, NSW 2001 (AU).

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.

(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,
SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the
claims and to be republished in the event of receipt of
amendments

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: **METHODS FOR BREEDING PLANTS**

(57) Abstract: The present invention provides a method for generating a woody perennial breeding line, comprising: a) selecting one or more woody perennial plants comprising at least one allele associated with male sterility; b) selecting one or more woody perennial plants which are capable of hybridisation with the plant(s) selected in step (a) and which comprise at least one allele associated with at least one target inheritable trait; c) crossing the one or more plants selected in step (a) with the one or more plants selected in step (b); d) selecting progeny plants which have one or more desired traits and which comprise at least one allele associated with male sterility and at least one allele associated with the at least one target trait; e) selecting progeny plants which are homozygous for male sterility, which comprise at least one allele associated with the at least one target trait and which have one or more desired traits. Male sterile woody perennial breeding lines generated by the methods of the invention are also provided.



WO 2005/029945 A1